CLAIMS

1. A recording medium having a data structure for managing to resume reproduction of at least video data recorded on the recording medium, having data recorded thereon, the data comprising:

at least one data playing unit including the video data; and

navigation information for managing the data playing unit,

wherein the navigation information includes control information to indicate whether resumption of the data playing unit is permitted or not.

2. The recording medium of claim 1, wherein the data playing unit is a title or a program chain.

3. The recording medium of claim 2, wherein the control information is recorded in a program chain information table pertaining to the navigation information.

4. The recording medium of claim 1, wherein the data playing unit is a data section specified by a movie object constituting a title.

5. The recording medium of claim 4, wherein the control information is recorded in the movie object pertaining to the navigation information.

6. The recording medium of claim 1, wherein the navigation information further includes commands to conduct operations according to value of the control information.

7. The recording medium of claim 1, wherein the control information is applied when menu presentation is called during reproduction of the data playing unit.

8. A recording medium having a data structure for managing to resume reproduction of at least video data recorded on the recording medium, having data recorded thereon, the data comprising:

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menu data;

at least one data playing unit including the video data; and

navigation information for managing the data playing unit,

wherein the navigation information includes control

5 information to indicate a behavior on the data playing unit when

reproduction of the menu data is called during reproduction of the

data playing unit.

9. The recording medium of claim 8, wherein the control

information indicates that the data playing unit is discarded when

10 reproduction of the menu data is called during reproduction of the

data playing unit.

10. The recording medium of claim 8, wherein the control

information indicates that the data playing unit is suspended when

reproduction of the menu data is called during reproduction of the

15 data playing unit.

11. A recording medium having a data structure for managing

to resume reproduction of at least video data recorded on the

recording medium, having data recorded thereon, the data

comprising:

20   menu data;

at least one data playing unit including the video data; and

navigation information for managing the data playing unit,

wherein the navigation information includes control

information to indicate whether or not to store current reproduction

25 location on the data playing unit when reproduction of the menu

data is called during reproduction of the data playing unit.

12. A recording medium having a data structure for managing

to resume reproduction of at least video data recorded on the

recording medium, having data recorded thereon, the data

30 comprising:

menu data;

at least one data playing unit including the video data; and

navigation information for managing the data playing unit,

wherein the navigation information includes control information to indicate whether or not to update location information to resume from, when reproduction of the menu data is called during reproduction of the data playing unit.

13. A method for recording a data structure for managing to resume reproduction of at least video data on a recording medium, comprising:

recording at least one data playing unit including the video data on the recording medium; and

recording navigation information for managing the data playing unit on the recording medium,

wherein the navigation information includes control information to indicate whether resumption of the data playing unit is permitted or not.

14. A method for recording a data structure for managing to resume reproduction of at least video data on a recording medium, comprising:

recording menu data and at least one data playing unit including the video data on the recording medium; and

recording navigation information for managing the data playing unit on the recording medium,

wherein the navigation information includes control information to indicate a behavior on the data playing unit when reproduction of the recorded menu data is called during reproduction of the data playing unit.

15. A method for recording a data structure for managing to resume reproduction of at least video data on a recording medium, comprising:

recording menu data and at least one data playing unit including the video data on the recording medium; and

recording navigation information for managing the data playing unit on the recording medium,

wherein the navigation information includes control

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information to indicate whether or not to store current reproduction location on the data playing unit when reproduction of the recorded menu data is called during reproduction of the data playing unit.

16. A method for recording a data structure for managing to
5 resume reproduction of at least video data on a recording medium, comprising:

recording menu data and at least one data playing unit including the video data on the recording medium; and

recording navigation information for managing the data
10 playing unit on the recording medium,

wherein the navigation information includes control information to indicate whether or not to update location information to resume from, when reproduction of the recorded menu data is called during reproduction of the data playing unit.

15 17. An apparatus for recording a data structure for managing to resume reproduction of at least video data on a recording medium, comprising:

a drive for driving an optical recording means that records data on the recording medium;

20 an encoder for encoding the video data; and

a controller for controlling the drive to record the encoded video data as at least one data playing unit on the recording medium, and for creating navigation information for managing the data playing unit and controlling the drive to record the created
25 navigation information on the recording medium,

wherein the navigation information includes control information to indicate whether resumption of the data playing unit is permitted or not.

18. An apparatus for recording a data structure for managing
30 to resume reproduction of at least video data on a recording medium, comprising:

a drive for driving an optical recording means that records data on the recording medium;

an encoder for encoding the video data and menu data; and

a controller for controlling the drive to record the encoded data on the recording medium such that the encoded video data is recorded as at least one data playing unit, and for creating

5 navigation information for managing the data playing unit and controlling the drive to record the created navigation information on the recording medium,

wherein the navigation information includes control information to indicate a behavior on the data playing unit when

10 reproduction of the recorded menu data is called during reproduction of the data playing unit.

19. An apparatus for recording a data structure for managing to resume reproduction of at least video data on a recording medium, comprising:

15 a drive for driving an optical recording means that records data on the recording medium;

an encoder for encoding the video data and menu data; and

a controller for controlling the drive to record the encoded data on the recording medium such that the encoded video data is

20 recorded as at least one data playing unit, and for creating navigation information for managing the data playing unit and controlling the drive to record the created navigation information on the recording medium,

wherein the navigation information includes control

25 information to indicate whether or not to store current reproduction location on the data playing unit when reproduction of the recorded menu data is called during reproduction of the data playing unit.

20. An apparatus for recording a data structure for managing to resume reproduction of at least video data on a recording medium,

30 comprising:

a drive for driving an optical recording means that records data on the recording medium;

an encoder for encoding the video data and menu data; and

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a controller for controlling the drive to record the encoded
data on the recording medium such that the encoded video data is
recorded as at least one data playing unit, and for creating
navigation information for managing the data playing unit and
5 controlling the drive to record the created navigation information
on the recording medium,

      wherein the navigation information includes control
information to indicate whether or not to update location
information to resume from, when reproduction of the recorded menu
10 data is called during reproduction of the data playing unit.

      21. A method for reproducing a data structure for managing
to resume reproduction of at least video data recorded on a recording
medium, comprising the steps of:

      reproducing a data playing unit including the video data from
15 the recording medium;

      checking a resumable flag included in navigation information
for managing the data playing unit if menu presentation is
requested; and

      conducting menu presentation operation after storing current
20 reproduction location on the data playing unit, based on value of
the resumable flag.

      22. The method of claim 21, further comprising the step of
resuming to reproduce from the stored reproduction location after
menu operation commanded from a user.

25   23. A method for reproducing a data structure for managing
to resume reproduction of at least video data recorded on a recording
medium, comprising the steps of:

      reproducing a data playing unit including the video data from
the recording medium;

30   checking a resumable flag included in navigation information
for managing the data playing unit if menu presentation is
requested; and

      conducting menu presentation operation after updating

information of location to resume from on the data playing unit, based on value of the resume flag.

24. The method of claim 23, further comprising the step of resuming to reproduce from the updated location information after
5 menu operation commanded from a user.

25. An apparatus for reproducing a data structure for managing to resume reproduction of at least video data recorded on a recording medium, comprising:

a drive for driving an optical reproducing device to reproduce
10 data recorded on the recording medium;

a decoder for presenting the reproduced data; and

a controller for controlling the drive to reproduce a data playing unit including the video data from the recording medium,

wherein, if menu presentation is requested, the controller
15 checks a resumable flag included in navigation information for managing the data playing unit, and controls the drive and the decoder to conduct menu presentation operation after storing current reproduction location on the data playing unit, based on value of the resumable flag.

20 26. The apparatus of claim 25, wherein the controller further controls the drive to resume reproduction from the stored reproduction location after menu operation commanded from a user.

27. An apparatus for reproducing a data structure for managing to resume reproduction of at least video data recorded on a recording
25 medium, comprising:

a drive for driving an optical reproducing device to reproduce data recorded on the recording medium;

a decoder for presenting the reproduced data; and

a controller for controlling the drive to reproduce a data
30 playing unit including the video data from the recording medium,

wherein, if menu presentation is requested, the controller checks a resumable flag included in navigation information for managing the data playing unit, and controls the drive and the

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decoder to conduct menu presentation operation after updating
information of location to resume from on the data playing unit,
based on value of the resume flag.

     28. The apparatus of claim 27, wherein the controller further
controls the drive to resume reproduction from the updated location
information after menu operation commanded from a user.